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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/488,149	01/20/2000	Wayne V. Sorin	10991682-1	4013

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EXAMINER	
WANG, GEORGE Y	
ART UNIT	PAPER NUMBER
2882	

DATE MAILED: 04/23/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

8m

Office Action Summary	Application No.	Applicant(s)	
	09/488,149	SORIN ET AL.	
	Examiner	Art Unit	
	George Y. Wang	2882	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM
 THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 19 February 2003.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-4, 11, 12, 14 and 15 is/are rejected.
- 7) Claim(s) 5-10, 13 and 16-20 is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 20 January 2000 is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) The proposed drawing correction filed on _____ is: a) approved b) disapproved by the Examiner.
 If approved, corrected drawings are required in reply to this Office action.
- 12) The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
 a) The translation of the foreign language provisional application has been received.
- 15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ . |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ . | 6) <input type="checkbox"/> Other: _____ . |

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DETAILED ACTION

Response to Appeal Brief

1. In view of the Appeal Brief filed on 19 February 2003, PROSECUTION IS HEREBY REOPENED. After careful consideration of applicant's remarks, a new ground of rejection is being applied against claims 1-4, 11-12, and 14-15, which were previously rejected. The delay in citation of the above art is regretted. The new rejection is set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

- (1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,
- (2) request reinstatement of the appeal.

If reinstatement of the appeal is requested, such request must be accompanied by a supplemental appeal brief, but no new amendments, affidavits (37 CFR 1.130, 1.131 or 1.132) or other evidence are permitted. See 37 CFR 1.193(b)(2).

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

- (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the

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art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. Claims 1-4, 11-12, and 14-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over AAPA (Applicant's Admission of Prior Art) and Sorin (U.S. Patent No. 5,365,335) in view of Hasegawa et al. (U.S. Patent No. 4,553,264, from hereinafter "Hasegawa") and Evans et al. (U.S. Patent No. 4,048,573, from hereinafter "Evans").

AAPA (pg. 1, lines 14-31) and Sorin discloses a device and method of monitoring an optical signal utilizing a heterodyne detection (fig. 3, ref. 200) comprising steps of providing an input signal (fig. 3, ref. 214), a local oscillator signal (fig. 3, ref. 220), combining them (fig. 3, ref. 216), detecting the combined signal (fig. 3, ref. 12) of heterodyne, intensity and shot noise, and generating an output signal that is indicative of an optical parameter of input signal and includes monitoring a heterodyne signal. Sorin discloses an attenuator (fig. 3, ref. 240) that utilizes information from a feedback

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circuit (col. 2, lines 38-43) from the output to validate noise reduction via electronic and optical processing.

However, AAPA and Sorin fail to disclose an attenuator positioned before heterodyne signal combination.

Hasegawa discloses a heterodyne tuner with an attenuator positioned immediately after the input (fig. 8, ref. 62).

Evans discloses amplification improvements that include attenuation at the input (fig. 1; abstract).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have positioned the attenuator of Sorin immediately after the input port and before the signal combination as suggested by Hasegawa since the noise intensity from the input signal is usually a dominant noise source (fig. 8, ref. 62).

Attenuators are well known in the art and are widely used to reduce noise levels, maximizing signal to noise ratio in several optical systems (Evans, abstract). Although placing the attenuator after the coupler also exhibits functional equivalency, placing it immediately following the input signal, however, which likewise serves the same purpose, also has well known benefits.

Allowable Subject Matter

4. Claims 5-10, 13, and 16-20 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: As the claims were read and interpreted in light of the specification, the prior art of record fails to specifically disclose a heterodyne detection device and method of using that incorporates an attenuator with adjustable levels of attenuation with a step that includes sweeping at an oscillating wavelength range and another step that completely blocks transmission of input in order to calibrate coupler or receiver as a function of wavelength.

Response to Arguments

5. Applicant's arguments filed 19 February 2003 have been fully considered but they are not persuasive.

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., "the introduction of two different signals") are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). In claims 1 and 11, Applicant merely claims "providing" the signals, not necessarily directionally "inputting" them. In claim 14, Applicant admits that Sorin discloses two signal portions, but never claims receiving completely "different signals." Therefore, the Sorin reference seems to be completely adequate in its teachings.

Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to George Y. Wang whose telephone number is 703-305-7242. The examiner can normally be reached on M-F, 8 am - 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert H. Kim can be reached on 703-305-3492. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-7722 for regular communications and 703-308-7724 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

gw
April 21, 2003

[Signature]
GEORGE Y. WANG
SUPERVISOR OF THE EXAMINER
APRIL 21, 2003
TUE